

CLAIMS

What is claimed is:

1. A method for multimedia communication,
comprising the steps of:
 - 5 communicatively interconnecting a plurality of
multimedia terminals to a plurality of corresponding multipoint
control units;
 - communicatively interconnecting the plurality of
corresponding multipoint control units to a central controller;
 - 10 identifying capability factors for each of the
plurality of multimedia terminals and each of the plurality of
corresponding multipoint control units;
 - responsive to a command to initiate a multimedia
communication between at least two of the plurality of multimedia
15 terminals, evaluating the capability factors for each of the at least two
multimedia terminals;
 - comparing the capability factors for each of the at
least two multimedia terminals to the capability factors of the
multipoint control units communicatively interconnected to the
20 central controller to determine a preferred interconnection between
the at least two multimedia terminals; and
 - responsive to the comparing of capability factors,
the central controller directing a communicative interconnection
between the at least two multimedia terminals via at least one of the
25 plurality of multipoint control units.
2. The method of Claim 1, wherein the capability factors
include identification factors, matching factors, and routing factors.

5 4. The method of Claim 2, wherein the matching factors
include information relating to the capacity and technological
orientation of each of the plurality of corresponding multipoint
control units.

6. The method of Claim 1, further comprising:
allocating conferences on multipoint control
units such that the number of conferences that can be scheduled on a
conference schedule is optimized.

8. The method of Claim 1, further comprising:
controlling multipoint control unit
participant slots with the virtual multipoint control unit.

23

10. The method of Claim 8, wherein the multipoint control unit participant slots are participant slots remaining after the multipoint control unit is optimally scheduled.

11. The method of Claim 1, wherein the command to initiate a multimedia communication is issued when the start time for a conference arrives.

12. The method of Claim 1, wherein the command to initiate a multimedia communication is issued when a participant requests an impromptu multimedia communication.

13. A system for multimedia communication, comprising:

a plurality of multimedia terminals;

a plurality of multipoint control units in communication with the plurality of multimedia terminals; and

a virtual multipoint control unit communicatively interconnected to the plurality of corresponding multipoint control units for controlling the plurality of multipoint control units from a single location.

14. The system of Claim 13, wherein at least one of the multimedia terminals is an H.320 terminal.

15. The system of Claim 13, wherein at least one of the multimedia terminals is an H.323 terminal.

16. The system of Claim 13, wherein at least one of the multimedia terminals is an H.321 terminal.

17. The system of Claim 13, wherein the multimedia terminals include a combination of H.320, H.321, and H.323 systems.

5

10

15

20

0610603.02

a conference reservation manager for making conference reservations.

a conference manager for managing a conference by directing participants to a selected multipoint control unit to engage in a conference.

a conference reservation manager for making conference reservations by assigning a particular multipoint control unit to a conference; and

a conference manager for managing a conference by directing participants to a selected multipoint control unit to engage in a conference, the selected multipoint control unit being selected from a group of multipoint control units consisting of the particular multipoint control unit and an alternate available multipoint control unit.

32. The master control unit of Claim 31, wherein the conference manager directs the participants to the selected multipoint control unit by providing to the particular multipoint control unit a number to which to forward a call if an alternate available multipoint control unit is selected as the selected multipoint control unit.

33. The master control unit of Claim 26, further comprising:

34. The master control unit of Claim 26, wherein each of
5 the at least one multipoint control units can support X participant slots
in one or more conferences, further comprising:

wherein the resources are allocated by
10 assigning conferences to a multipoint control unit so that optimal use
of the at least one multipoint control units can be obtained.

15 receiving a first request for a first
conference, the first conference requiring support for A participants;

20 receiving a third request for a third
conference, the third conference requiring support for C participants;

0610603.02

36. The master control unit of Claim 34, wherein the resources are allocated among the at least one multipoint control units as follows:

receiving a first request for a first
5 conference, the first conference requiring support for A participants;

receiving a second request for a second
conference, the second conference requiring support for B
participants;

receiving a third request for a third
10 conference, the third conference requiring support for C participants;

wherein the sum of A and B is greater than
X, the sum of A and C is greater than X, and the sum of B and C is
greater than X, assigning the first conference to a first multipoint
control unit, assigning the second conference to a second multipoint
15 control unit, and assigning the third conference to a virtual multipoint
control unit, wherein the virtual multipoint control unit controls the
remaining participant slots on the first and second multipoint control
units as an additional multipoint control unit.

37. A multimedia conference system for making a
20 plurality of multimedia conferences between pluralities of terminals
via selected one or more multipoint control units, comprising:

a virtual multipoint control unit;

a plurality of multipoint control units;

a plurality of terminals;

25 means for connecting at least one of the
plurality of terminals with at least one of the multipoint control units;

means for connecting at least one of the terminals with the virtual multipoint control unit; and

the virtual multipoint control unit receiving a command to initiate a multimedia conference between at least two of the plurality of terminals, assigning a conference to at least one selected multipoint control unit of the plurality of multipoint control units, and routing the participant terminals to the selected multipoint control unit.

38. The system of Claim 37, wherein the virtual multipoint control unit is one of the multipoint control units.

39. The system of Claim 37, wherein the virtual multipoint control unit consists of an external router unit.

40. The system of Claim 37, wherein the means for connecting the virtual multipoint control unit and the multipoint control unit includes connection selected from a group consisting of: direct connection, TCT/IP Intranet connection, and TCP/IP Internet connection.

41. The system of Claim 37, wherein the means for connecting at least one of the plurality of terminals with the virtual multipoint control unit includes connection selected from a group consisting of: direct connection, LAN, ATM network, Switched network, Intelligent Network, and Internet.

42. The system of Claim 37, wherein the means for connecting at least one of the plurality of terminals with at least one of the multipoint control units includes connection selected from a group consisting of: direct connection, LAN, ATM network, Switched network, Intelligent Network, and Internet.

09708898-110800

43. The system of Claim 37, wherein the connection of at least one of the plurality of terminals with the virtual multipoint control unit is using a communication protocol selected from a group consisting of: direct connection, H.320, H.321, and H.323.

44. The system of Claim 37, wherein the connection of at least one of the plurality of terminals with at least one of the multipoint control units is using a communication protocol selected from a group consisting of: direct connection, H.320, H.321, and H.323.

45. The system of Claim 37, wherein the virtual multipoint control unit comprises a reservation module that will:

- accept a request for a multimedia conference;
- get conference parameters;
- review the capability factors of the group of multipoint control units;
- verify that the request can be accepted;
- if it is accepted, notify the relevant modules inside the virtual multipoint control unit of the conference parameters, and return an approval of the request; and
- if it is not accepted, reject the request.

46. The system of Claim 45, wherein the reservation factors include at least one factor selected from a group consisting of: start time, duration, number of participants, protocol type, bit rate, and terminal type.

09708898-110800

47. The system of Claim 45, wherein the capability factors of the group of multipoint control units includes at least one factor selected from a group consisting of: a number of free audio bridges, and a number of free video mixers.

5 48. The system of Claim 45, wherein the approval for a conference request is a dial-in number.

09708898 110800